General

Guideline Title

Serologic screening for genital herpes infection: U.S. Preventive Services Task Force recommendation statement.

Bibliographic Source(s)

U.S. Preventive Services Task Force. Serologic screening for genital herpes infection: U.S. Preventive Services Task Force recommendation statement. JAMA. 2016 Dec 20;316(23):2525-30. [28 references] PubMed

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: U.S. Preventive Services Task Force (USPSTF). Screening for genital herpes: recommendation statement. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2005. 11 p. [32 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

The U.S. Preventive Services Task Force (USPSTF) grades its recommendations (A, B, C, D, or I) and identifies the Levels of Certainty regarding Net Benefit (High, Moderate, and Low). The definitions of these grades can be found at the end of the "Major Recommendations" field.

Summary of Recommendation and Evidence

The USPSTF recommends against routine serologic screening for genital herpes simplex virus (HSV) infection in asymptomatic adolescents and adults, including those who are pregnant (D recommendation).

Clinical Considerations

Patient Population Under Consideration

This recommendation statement applies to asymptomatic adolescents and adults, including those who are pregnant, without a history of genital HSV infection (see Figure 2 in the original guideline document).

Screening Tests

The USPSTF does not recommend serologic screening for genital HSV infection in asymptomatic persons.

Treatment

The Centers for Disease Control and Prevention (CDC) provides guidance for the diagnosis and management of genital HSV infection.

Additional Approaches to Prevention

The USPSTF recommends intensive behavioral counseling interventions to reduce the likelihood of acquiring a sexually transmitted infection (STI) for all sexually active adolescents and for adults at increased risk.

Useful Resources

The USPSTF has issued recommendations on screening for other STIs, including chlamydia and gonorrhea, hepatitis B virus, human immunodeficiency virus (HIV), and syphilis.

Definitions

What the United States Preventive Services Task Force (USPSTF) Grades Mean and Suggestions for Practice

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality or conflicting, and the balance of benefits and harms cannot be determined.	Read the "Clinical Considerations" section of the USPSTF Recommendation Statement (see the "Major Recommendations" field). If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

USPSTF Levels of Certainty Regarding Net Benefit

Definition: The U.S. Preventive Services Task Force defines certainty as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by factors such as: • The number, size, or quality of individual studies • Inconsistency of findings across individual studies • Limited generalizability of findings to routine primary care practice • Lack of coherence in the chain of evidence As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of:

Level of Certainty	Description
	• The limited number or size of studies • Important flaws in study design or methods • Inconsistency of findings across individual studies • Gaps in the chain of evidence • Findings not generalizable to routine primary care practice • A lack of information on important health outcomes More information may allow an estimation of effects on health outcomes.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Genital herpes

Guideline Category

Prevention

Screening

Clinical Specialty

Family Practice

Internal Medicine

Obstetrics and Gynecology

Pediatrics

Preventive Medicine

Urology

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To update the 2005 U.S. Preventive Services Task Force (USPSTF) recommendation on screening for genital herpes

Target Population

Asymptomatic adolescents and adults, including those who are pregnant, without a history of genital herpes simplex virus (HSV) infection

Interventions and Practices Considered

Serological screening tests for genital herpes

Major Outcomes Considered

- Key Question 1:
    a. Does serologic screening for herpes simplex virus type 2 (HSV-2) or combined testing for herpes simplex virus type 1 (HSV-1) and 2 in asymptomatic nonpregnant adults and adolescents reduce future symptomatic episodes and transmission of genital herpes?
    b. Does serologic screening for HSV-2 or combined testing for HSV-1 and HSV-2 in pregnant women reduce neonatal HSV infection and symptomatic episodes of genital herpes at delivery?
- Key Question 2: What is the accuracy of serologic screening for HSV-2 in asymptomatic adults, adolescents, and pregnant women?
- Key Question 3:
    a. What are the harms of serologic screening for HSV-2 or combined testing for HSV-1 and HSV-2 in asymptomatic nonpregnant adolescents and adults?
    b. What are the harms of serologic screening for HSV-2 or combined testing for HSV-1 and HSV-2 in asymptomatic pregnant women?
- Key Question 4: How effective are oral antiviral medications in reducing genital HSV-2 viral shedding in asymptomatic adolescents, adults, and pregnant women?
- Key Question 5:
    a. How effective are preventive medications and behavioral counseling interventions in reducing future symptomatic episodes and transmissions of genital herpes in asymptomatic nonpregnant adults and adolescents?
    b. How effective are preventive medications and behavioral counseling interventions in reducing neonatal HSV infection and symptomatic episodes of genital herpes at delivery in pregnant women?
- Key Question 6:
    a. What are the harms of preventive medications and behavioral counseling interventions for reducing future symptomatic episodes and transmission of genital herpes in asymptomatic nonpregnant adults and adolescents?
    b. What are the harms of preventive medications and behavioral counseling interventions for reducing neonatal HSV infection and symptomatic episodes of genital herpes at delivery in asymptomatic pregnant women?
- Key Question 7: What is the evidence supporting an association between subclinical HSV-2 viral shedding and health outcomes in asymptomatic adults, adolescents, and pregnant women who are seropositive for HSV-2?

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Searches of Patient Registry Data

Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the RTI International–University of North Carolina Evidence-based Practice Center for use by the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion

Documents" field).

Data Sources and Searches

PubMed/MEDLINE, the Cochrane Library, and EMBASE were searched for English-language articles published through March 31, 2016. Search strategies are listed in eMethods in the systematic review supplement. The reviewers searched for unpublished literature in ClinicalTrials.gov and the World Health Organization's International Clinical Trials Registry Platform. To supplement electronic searches, reference lists of pertinent articles and suggested citations from reviewers were reviewed. The reviewers conducted ongoing surveillance after March 2016 through article alerts and targeted searches of high-impact journals to identify major studies published in the interim that may affect the conclusions or understanding of the evidence and related USPSTF recommendation. The last surveillance was conducted on October 31, 2016.

Study Selection

Two investigators independently reviewed titles, abstracts, and full-text articles to determine eligibility using prespecified criteria (eTable 1 in the systematic review supplement). Disagreements were resolved by discussion. English-language studies of immunocompetent adults or adolescents, including pregnant women, were included. Only studies rated as good or fair quality were included. For all key questions (KQs), studies of persons without symptoms or a clinical history of genital herpes were eligible, as were studies of asymptomatic partners of persons with known genital herpes (i.e., discordant couples). For the overarching question on direct evidence that screening improves health outcomes (KQ1), only randomized clinical trials (RCTs) comparing groups that were screened with groups that were not screened were included.

For KQ2 (accuracy of serologic tests), the investigators included studies of U.S. Food and Drug Administration (FDA)-approved serologic tests for HSV-2 that reported accuracy compared with the Western blot, which has been used as a reference standard in studies assessing commercially available serologic tests in the United States. Eligible populations could be symptomatic, asymptomatic, or a combination of both.

For KQ3 (harms of screening), the investigators included trials, systematic reviews, and observational studies assessing the harms of screening in asymptomatic populations with no prior diagnosis of genital herpes, with or without a comparison group.

For studies assessing benefits or harms of preventive medications in asymptomatic populations (KQ4 through KQ6), RCTs comparing FDA-approved oral antiviral medications for the suppression of recurrent genital herpes (acyclovir, famciclovir, or valacyclovir) with placebo were eligible. RCTs of behavioral counseling interventions (e.g., education or counseling; partner notification; barrier protection; or combinations of these components) were also eligible. For studies assessing the harms of antiviral medications in pregnant women (KQ6b), multi-institution antiviral medication pregnancy exposure registries were eligible. Eligible outcomes included reduced rates of symptomatic episodes and transmission (including measures of HSV-2 seroconversion). For KQ5b (effectiveness of interventions in pregnant women), eligible outcomes also included rates of neonatal HSV infection and reduced rates of symptomatic genital herpes at delivery. For KQ4 (effects of antiviral medication on subclinical HSV-2 shedding), we included any outcome measure of subclinical HSV-2 shedding (e.g., percentage of days with any shedding detected).

Number of Source Documents

See the literature flow diagram (Figure 2) in the systematic review (see the "Availability of Companion Documents" field) for a summary of evidence search and selection.

Articles included for Key Questions:

- Key Question 1: 0 studies
- Key Question 2: 11 studies
- Key Question 3: 2 studies
- Key Question 4: 2 studies
- Key Question 5: 4 studies
- Key Question 6: 1 study

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Two independent investigators assessed the quality of each study as good, fair, or poor, using predefined criteria developed by the U.S. Preventive Services Task Force (USPSTF) and adapted for this topic (eTables 2 and 3 in the systematic review supplement [see the "Availability of Companion Documents" field]). Individual study quality ratings are provided in the supplement (eTables 4-7 in the systematic review supplement).

Methods Used to Analyze the Evidence

Meta-Analysis

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the RTI International–University of North Carolina Evidence-based Practice Center for use by the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion Documents" field).

Data Extraction and Quality Assessment

For each included study, one investigator extracted information about design, population, tests or treatments used, and outcomes, and a second investigator reviewed for completeness and accuracy. Two independent investigators assessed the quality of each study as good, fair, or poor, using predefined criteria developed by the USPSTF and adapted for this topic (eTables 2 and 3 in the systematic review supplement). Individual study quality ratings are provided in the systemic review supplement (eTables 4-7).

Data Synthesis and Analysis

Findings for each question were summarized in tabular and narrative form. To determine whether meta-analyses were appropriate, the clinical and methodological heterogeneity of the studies was assessed following established guidance. To do this, the reviewers qualitatively assessed the similarities and differences in populations, tests, treatments, comparators, outcomes, and designs. For key question (KQ) 2 (the only KQ with sufficient numbers of similar studies for quantitative syntheses), pooled sensitivities and specificities for each type of serologic test were calculated using a hierarchical summary receiver operating characteristic (HSROC) curve analysis when at least 3 similar studies were available. Separate models were developed for each type of serologic test, and separate analyses were conducted for HerpeSelect using the manufacturer-recommended cutpoint for test positivity and for higher cutpoints reported in the literature to determine whether accuracy is improved with using higher cutpoints. The metandi program in Stata version 14 was used to conduct all quantitative analyses.

Methods Used to Formulate the Recommendations

Balance Sheets

Expert Consensus

Description of Methods Used to Formulate the Recommendations

The U.S. Preventive Services Task Force (USPSTF) systematically reviews the evidence concerning both the benefits and harms of widespread implementation of a preventive service. It then assesses the certainty of the evidence and the magnitude of the benefits and harms. On the basis of this assessment, the USPSTF assigns a letter grade to each preventive service signifying its recommendation about provision of the service (see table below). An important, but often challenging, step is determining the balance between benefits and harms to estimate "net benefit" (that is, benefits minus harms).

U.S. Preventive Services Task Force Recommendation Grid*

Certainty of Net Benefit	Magnitude of Net Benefit			
	Substantial	Moderate	Small	Zero/Negative

Certainty of Net Benefit	Magnitude of Net Benefit			
	Substantial	Moderate	Small	Zero/Negative
High	A	B	C	D
Moderate	B	B	C	D
Low	Insufficient			

**A*, *B*, *C*, *D*, and *I (Insufficient)* represent the letter grades of recommendation or statement of insufficient evidence assigned by the USPSTF after assessing certainty and magnitude of net benefit of the service (see the "Rating Scheme for the Strength of the Recommendations" field.

The overarching question that the USPSTF seeks to answer for every preventive service is whether evidence suggests that provision of the service would improve health outcomes if implemented in a general primary care population. For screening topics, this standard could be met by a large randomized controlled trial (RCT) in a representative asymptomatic population with follow-up of all members of both the group "invited for screening" and the group "not invited for screening."

Direct RCT evidence about screening is often unavailable, so the USPSTF considers indirect evidence. To guide its selection of indirect evidence, the USPSTF constructs a "chain of evidence" within an analytic framework. For each key question, the body of pertinent literature is critically appraised, focusing on the following 6 questions:

1. Do the studies have the appropriate research design to answer the key question(s)?
2. To what extent are the existing studies of high quality? (i.e., what is the internal validity?)
3. To what extent are the results of the studies generalizable to the general U.S. primary care population and situation? (i.e., what is the external validity?)
4. How many studies have been conducted that address the key question(s)? How large are the studies? (i.e., what is the precision of the evidence?)
5. How consistent are the results of the studies?
6. Are there additional factors that assist the USPSTF in drawing conclusions (e.g., presence or absence of dose–response effects, fit within a biologic model)?

The next step in the USPSTF process is to use the evidence from the key questions to assess whether there would be net benefit if the service were implemented. In 2001, the USPSTF published an article that documented its systematic processes of evidence evaluation and recommendation development. At that time, the USPSTF's overall assessment of evidence was described as good, fair, or poor. The USPSTF realized that this rating seemed to apply only to how well studies were conducted and did not fully capture all of the issues that go into an overall assessment of the evidence about net benefit. To avoid confusion, the USPSTF has changed its terminology. Whereas individual study quality will continue to be characterized as good, fair, or poor, the term certainty will now be used to describe the USPSTF's assessment of the overall body of evidence about net benefit of a preventive service and the likelihood that the assessment is correct. Certainty will be determined by considering all 6 questions listed above; the judgment about certainty will be described as high, moderate, or low.

In making its assessment of certainty about net benefit, the evaluation of the evidence from each key question plays a primary role. It is important to note that the USPSTF makes recommendations for real-world medical practice in the United States and must determine to what extent the evidence for each key question—even evidence from screening RCTs or treatment RCTs—can be applied to the general primary care population. Frequently, studies are conducted in highly selected populations under special conditions. The USPSTF must consider differences between the general primary care population and the populations studied in RCTs and make judgments about the likelihood of observing the same effect in actual practice.

It is also important to note that one of the key questions in the analytic framework refers to the potential harms of the preventive service. The USPSTF considers the evidence about the benefits and harms of preventive services separately and equally. Data about harms are often obtained from observational studies because harms observed in RCTs may not be representative of those found in usual practice and because some harms are not completely measured and reported in RCTs.

Putting the body of evidence for all key questions together as a chain, the USPSTF assesses the certainty of net benefit of a preventive service by asking the 6 major questions listed above. The USPSTF would rate a body of convincing evidence about the benefits of a service that, for example, derives from several RCTs of screening in which the estimate of benefits can be generalized to the general primary care population as "high" certainty (see the "Rating Scheme for the Strength of Recommendations" field). The USPSTF would rate a body of evidence that was not clearly applicable to general practice or has other defects in quality, research design, or consistency of studies as "moderate" certainty. Certainty is "low" when, for example, there are gaps in the evidence linking parts of the analytic framework, when evidence to determine the harms of treatment is unavailable, or when evidence about the benefits of treatment is insufficient. Table 4 in the methodology document listed below (see the "Availability of Companion Documents" field) summarizes the current terminology used by the USPSTF to describe the critical assessment of evidence at all 3 levels: individual studies, key questions, and overall certainty of net benefit of the preventive service.

Sawaya GF, Guirguis-Blake J, LeFevre M, Harris R, Petitti D; U.S. Preventive Services Task Force. Update on the methods of the U.S. Preventive Services Task Force: estimating certainty and magnitude of net benefit. Ann Intern Med. 2007;147(12):871-875. [5 references].

Rating Scheme for the Strength of the Recommendations

What the United States Preventive Services Task Force (USPSTF) Grades Mean and Suggestions for Practice

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality or conflicting, and the balance of benefits and harms cannot be determined.	Read the "Clinical Considerations" section of the USPSTF Recommendation Statement (see the "Major Recommendations" field). If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

USPSTF Levels of Certainty Regarding Net Benefit

Definition: The U.S. Preventive Services Task Force defines certainty as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by factors such as: • The number, size, or quality of individual studies • Inconsistency of findings across individual studies • Limited generalizability of findings to routine primary care practice • Lack of coherence in the chain of evidence As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of: • The limited number or size of studies • Important flaws in study design or methods • Inconsistency of findings across individual studies • Gaps in the chain of evidence • Findings not generalizable to routine primary care practice • A lack of information on important health outcomes More information may allow an estimation of effects on health outcomes.

Level of Certainty	Description

Cost Analysis

The U.S. Preventive Services Task Force (USPSTF) does not consider the costs of providing a service in this assessment.

Method of Guideline Validation

Comparison with Guidelines from Other Groups

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Peer Review

Before the U.S. Preventive Services Task Force (USPSTF) makes its final determinations about recommendations on a given preventive service, the Evidence-based Practice Center and the Agency for Healthcare Research and Quality send the draft evidence review to 4 to 6 external experts and to Federal agencies and professional and disease-based health organizations with interests in the topic. The experts are asked to examine the review critically for accuracy and completeness and to respond to a series of specific questions about the document. The draft evidence review is also posted on the USPSTF Web site for public comment. After assembling these external review comments and documenting the proposed response to key comments, the topic team presents this information to the USPSTF in memo form. In this way, the USPSTF can consider these external comments before it votes on its recommendations about the service. Draft recommendation statements are then circulated for comment among reviewers representing professional societies, voluntary organizations, and Federal agencies, as well as posted on the USPSTF Web site for public comment. These comments are discussed before the final recommendations are confirmed.

Response to Public Comment

A draft version of this recommendation statement was posted for public comment on the USPSTF website from August 2 to August 29, 2016. The USPSTF reviewed and considered all comments received during this period. Several comments supported the USPSTF's analysis and conclusions; some comments noted that the recommendation is consistent with current clinical practice and advice from other organizations, including the Centers for Disease Control and Prevention (CDC) and the American College of Obstetricians and Gynecologists (ACOG). A few comments expressed concern that persons with asymptomatic genital herpes infection can (unknowingly) transmit the infection to sexual partners. While the USPSTF understands this concern, given the current lack of accurate, widely available serologic screening tests and the expected high rate of false-positive results that would occur with widespread screening in asymptomatic persons, the USPSTF continues to recommend against routine serologic screening in asymptomatic adolescents and adults. In addition, the USPSTF clarified its language about herpes simplex virus 1 (HSV-1) infection, noting that while HSV-1 infection can be identified by serologic tests, the tests cannot determine if the site of infection is oral or genital.

Recommendations of Others

Recommendations for screening from the following groups were considered: the American Academy of Family Physicians, ACOG, and the CDC.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendation is not specifically stated.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Benefits of Early Detection and Intervention

Based on limited evidence from a small number of trials on the potential benefit of screening and interventions in asymptomatic populations and an understanding of the natural history and epidemiology of genital herpes simplex virus (HSV) infection, the U.S. Preventive Services Task Force (USPSTF) concluded that the evidence is adequate to bound the potential benefits of screening in asymptomatic adolescents and adults, including those who are pregnant, as no greater than small.

Potential Harms

Harms of Early Detection and Intervention

Based on evidence on potential harms from a small number of trials, the high false-positive rate of the screening tests, and the potential anxiety and disruption of personal relationships related to diagnosis, the U.S. Preventive Services Task Force (USPSTF) found that the evidence is adequate to bound the potential harms of screening in asymptomatic adolescents and adults, including those who are pregnant, as at least moderate.

Qualifying Statements

Qualifying Statements

- The U.S. Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific clinical preventive services for patients without obvious related signs or symptoms.
- It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.
- The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.
- Recommendations made by the USPSTF are independent of the U.S. government. They should not be construed as an official position of the Agency for Healthcare Research and Quality (AHRQ) or the U.S. Department of Health and Human Services.

Implementation of the Guideline

Description of Implementation Strategy

The experiences of the first and second U.S. Preventive Services Task Force (USPSTF), as well as that of other evidence-based guideline efforts, have highlighted the importance of identifying effective ways to implement clinical recommendations. Practice guidelines are relatively weak tools for changing clinical practice when used in isolation. To effect change, guidelines must be coupled with strategies to improve their acceptance and feasibility. Such strategies include enlisting the support of local opinion leaders, using reminder systems for clinicians and patients, adopting standing orders, and audit and feedback of information to clinicians about their compliance with recommended practice.

In the case of preventive services guidelines, implementation needs to go beyond traditional dissemination and promotion efforts to recognize the added patient and clinician barriers that affect preventive care. These include clinicians' ambivalence about whether preventive medicine is part of their job, the psychological and practical challenges that patients face in changing behaviors, lack of access to health care or of insurance coverage for preventive services for some patients, competing pressures within the context of shorter office visits, and the lack of organized systems in most practices to ensure the delivery of recommended preventive care.

Dissemination strategies have changed dramatically in this age of electronic information. While recognizing the continuing value of journals and other print formats for dissemination, the USPSTF will make all its products available through its Web site . The combination of electronic access and extensive material in the public domain should make it easier for a broad audience of users to access USPSTF materials and adapt them for their local needs. Online access to USPSTF products also opens up new possibilities for the appearance of the annual, pocket-size

Guide to Clinical Preventive Services.

To be successful, approaches for implementing prevention have to be tailored to the local level and deal with the specific barriers at a given site, typically requiring the redesign of systems of care. Such a systems approach to prevention has had notable success in established staff-model health maintenance organizations, by addressing organization of care, emphasizing a philosophy of prevention, and altering the training and incentives for clinicians. Staff-model plans also benefit from integrated information systems that can track the use of needed services and generate automatic reminders aimed at patients and clinicians, some of the most consistently successful interventions. Information systems remain a major challenge for individual clinicians' offices, however, as well as for looser affiliations of practices in network-model managed care and independent practice associations, where data on patient visits, referrals, and test results are not always centralized.

Implementation Tools

Mobile Device Resources

Patient Resources

Pocket Guide/Reference Cards

Staff Training/Competency Material

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

U.S. Preventive Services Task Force. Serologic screening for genital herpes infection: U.S. Preventive Services Task Force recommendation statement. JAMA. 2016 Dec 20;316(23):2525-30. [28 references] PubMed

Adaptation

Not applicable: The guideline is not adapted from another source.

Date Released

2016 Dec 20

Guideline Developer(s)

U.S. Preventive Services Task Force - Independent Expert Panel

Guideline Developer Comment

The U.S. Preventive Services Task Force (USPSTF) is a federally-appointed panel of independent experts. Conclusions of the USPSTF do not necessarily reflect policy of the U.S. Department of Health and Human Services or its agencies.

Source(s) of Funding

The U.S. Preventive Services Task Force (USPSTF) is an independent, voluntary body. The U.S. Congress mandates that the Agency for Healthcare Research and Quality (AHRQ) support the operations of the USPSTF.

Guideline Committee

U.S. Preventive Services Task Force (USPSTF)

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*Members of the Task Force at the time this recommendation was finalized. For a list of current Task Force members, go to https://www.uspreventiveservicestaskforce.org/Page/Name/our-members.

Financial Disclosures/Conflicts of Interest

The U.S. Preventive Services Task Force (USPSTF) has an explicit policy concerning conflict of interest. All members disclose at each meeting if they have a significant financial, professional/business, or intellectual conflict for each topic being discussed. USPSTF members with conflicts may be recused from discussing or voting on recommendations about the topic in question.

Conflict of Interest Disclosures

All authors have completed and submitted the International Committee of Medical Journal Editors (ICMJE) Form for Disclosure of Potential Conflicts of Interest. Authors followed the policy regarding conflicts of interest described at https://www.uspreventiveservicestaskforce.org/Page/Name/conflict-of-interest-disclosures. All members of the USPSTF receive travel reimbursement and an honorarium for participating in USPSTF meetings.

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: U.S. Preventive Services Task Force (USPSTF). Screening for genital herpes: recommendation statement. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2005. 11 p. [32 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the Journal of the American Medical Association (JAMA) Web site.

Availability of Companion Documents

The following are available:

Evidence Reviews:

- Feltner C, Grodensky C, Ebel C, Middleton JC, Harris RP, Ashok M, Jonas D. Serological screening for genital herpes: an updated evidence report and systematic review for the U.S. Preventive Services Task Force. JAMA. 2016 Dec 20;316(23):2531-43.
- Feltner C, Grodensky C, Ebel C, Middleton JC, Harris RP, Ashok M, Jonas D. Serological screening for genital herpes: an evidence review for the U.S. Preventive Services Task Force. Evidence Synthesis No. 149. Publication No. No. 15-05223-EF-1. Rockville (MD): Agency for Healthcare Research and Quality; 2016 Dec. 88 p.

Available from the U.S. Preventive Services Task Force (USPSTF) Web site.

Background Articles:

- Barton MB et al. How to read the new recommendation statement: methods update from the U.S. Preventive Services Task Force. Ann Intern Med. 2007;147:123-7.
- Guirguis-Blake J et al. Current processes of the U.S. Preventive Services Task Force: refining evidence-based recommendation development. Ann Intern Med. 2007;147:117-22.
- Sawaya GF et al. Update on the methods of the U.S. Preventive Services Task Force: estimating certainty and magnitude of net benefit. Ann Intern Med. 2007;147:871-5.

Available from the USPSTF Web site.

The following are also available:

- Serological screening for genital herpes: clinical summary. Rockville (MD): U.S. Preventive Services Task Force; 2016 Dec. 1 p. Available from the USPSTF Web site.
- A continuing medical education (CME) activity is available free with registration from the Journal of the American Medical Association (JAMA) Web site.

The Electronic Preventive Services Selector (ePSS) is an application designed to provide primary care clinicians and health care teams timely decision support regarding appropriate screening, counseling, and preventive services for their patients. It is based on the current, evidence-based recommendations of the USPSTF and can be searched by specific patient characteristics, such as age, sex, and selected behavioral risk factors.

Patient Resources

Myhealthfinder is a tool that provides personalized recommendations for clinical preventive services specific to the user's age, gender, and pregnancy status. It features evidence-based recommendations from the USPSTF and is available at www.healthfinder.gov.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

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